Notebook Series -- Notebooks by Edison
Notebook, N-18-07-01

This undated notebook was used by Edison in July 1918. It contains entries on the preparation of metallic and other compounds for use in the chalk telephone. Several of the early entries are crossed out and noted as "Entrd." Some of these were entered into N-18-07-18.2. The front cover is labeled "Chalk Telephone {Rough Notes}." The pages are unnumbered. Only 14 pages have been used.

19992

Home Co.

MFG. STATIONERS,
96 JOHN ST.
AND
19 PLATT ST.
NEW YORK.

Chalk Telephone

Rough Notes.

ZINC OXALATE 500 atm.

5.4 + 0.5 (2) 5/16

for 13/32 7.0 + 0.6 (2) 7/16

6.5 + 0.6 (2) 13/32 (-) O.K.

Extra

500 atm.

Copper Oxide

12 + 0.8 (2) 33/64"

9.5 + 0.7 (2) O.K.

Cut

500 atm.

Copper Carbonate 39/64"

9.5 + 0.7 (2)

6.4 + 0.5 (2)

6.5 + 0.5 (2) O.K.

Cut

Cobalt Sulphate 500 atm.

14.0 + 0.5 (2) ∴ Total wt. 14.5 gms.

for 1 - wt total 6.1 Length

5.2 gms total O.K.

5.1 + 0.2 (2) Short.

Extra

Manganese Acetate 500

5.4 + 0.4 (2) 37/64" 6.0 total strikes to cylinder

3.8 + 0.3 (2)

9.7 Entrd

9.0 + 0.7 (2)

#3 of above little long 24

4.2 " "

Manganese Black Oxide 500

8.4 + 0.5 (2) 31/64 8.85 total

7.05 + 0.5 (2)

15 + 1.0 (2) 16 Entrd

7.4 (total) of above

7.6

Tin Oxide, Black (Stannous) 500

~~7.9 + 0.5 (2) 11/32~~

9.4 + 0.6 (10) Entrd

~~9.8 + 0.6 (10)~~

9.7 + 0.6 (10) OK

Nickel-Ammonium Sulphate 500

~~5.5 + 0.4 (1)~~ ~~31/64~~ ~~too wet.~~

4.7 + 0.3 (10) Entrd

Bismuth Oxychlorate 500

~~10 + 0.7 (2)~~ ~~21/64~~ Entrd.

12.3 + 0.9 (2) OK ✓

Bismuth Subcarbonate 500 Entrd

~~12.2 + 0.8 (2)~~

12.1 + 0.8 (2)

Lead Sulphate 500

~~12.1 + 0.8 (2)~~ ~~too wet~~ 25/64

~~12.6 + 0.4 (2)~~

~~12.6 + 0.6 (10)~~ Entrd

12.6 0.8 (10)

Lead Nitrate C1°. 500

27.5. + 0.6 (10) Total 28.2

~~Total 13.1 (total) of above 15/32~~ Entrd

11.5 of above

Lead Phosphate 500

~~30 + 1.2 (10) 31.3 total~~ Entrd

~~12 of above 7/16~~

11.3 " "

Lead Peroxide 500

~~12 + 0.7 (5) 21/64~~ Entrd

14.9 + 0.8 (2) O.K. 15.55 (total)

Lead Oxide (Yellow) PbO 500

15.0 + 0.8 (2) too wet. 5/16 Entrd

19.57 + 0.6 (2) 7/16"

18.5 + 0.6 (10)

Calcium Ferrocyanide
4.4 + 0.4 (2) 500 O.K.

Entrd

Mercury Oxide Red 500

14.8 + 0.5 (2) 11/32

17.5 + 0.6 (2)

Entrd

Colloidal Ferric Hydroxide 500 Entrd

6.5

Lithium Carbonate 500 Entrd

4.0 + 0.6 (10) Breaks when machined (drilled)

4.0 + 0.8 (10)

Aluminum Oxyde.

5 + 0.8 (10)

5 + 1.2 (10)

5 + 2.0 (10)

Iron Citrate
4.6 + 0.4 (10) 500 cracks when drying

Anthracene (pure)
4.3 $\frac{33}{64}$

(3.4)

P. Amido Phenol
3.5 $\frac{31}{64}$

3.0 $\frac{7}{16}$

(2.9)

P. Amido Phenol Hydrochloride

3.0 $\frac{2}{8}$

3.3

(3.2)

Para Phenylene Diamine
Receipt from Bengal M.P. 140°C.

3.2 $\frac{15}{32}$ 2.9

Benzidine

3.0 $\frac{23}{64}$

(3.4)

Benzidine Sulphate

3.4 $\frac{29}{64}$

3.1

(3.2)

Naphthalene

4.5 ~~3.5~~ $\frac{37}{64}$

~~2.7~~

3.2

Iron Citrate

4.6 + 0.4 ⑩ – 500 cracks while drying

4.6 + 0 – 500 $\frac{25}{32}$

~~4.5 + 0.2 ② – 500~~

4.5 + 0.2 ② – 500 $\frac{13}{32}$

~~16~~ + 0.4 ② [redacted]

total weight = 16.4

4.1 500

4 + 0.1

750 atm

Copper Oxide
9.7 + 0.6 cc 20% KOH - 750 atm

Strontium Oxalate
4.5 gms 750 atm ✓

Calcium Silicate
2.8 gms 750 atm ✓

Calcium Oxalate
3.3 gms 750 atm ✓

1000 atm

Calcium Silicate
Calcium Oxalate
Strontium Oxalate

on 1600# gage
349 #/□"

Calcium Silicate

3.1 gms @ 1000 atm

29/64"

2.8 gms

3.1
26
186
62
29) 806 (27
58
226
203
23

Calcium Oxalate

3.5 gms 7/16

3.3 gms

3.5
13
105
35
14) 455 (3.25
42
35
28
70

Strontium Oxalate

4.5 gms

Strontium Carbonate - 500 atm

6.4 gms + 0.3 cc. 2% KOH length OK

total wt 6.78 gms. - sticks

for 2 ~~12.8 gms + 0.4 cc 2% KOH~~

13.0 gms + 0.4 cc 2% KOH

6.2 gms of above for 1 OK.

13.0 gms + 0.~~4~~ cc. 2% KOH Sole. total wt 13.7 "

6.7 gms of above for 1 length. $\frac{27}{64}$

$$\begin{array}{r} 6.7 \\ 26 \\ \hline 402 \\ 134 \\ \hline 27\,)\,174.2\,(6.45 \\ 162 \\ \hline 122 \\ 108 \\ \hline 140 \\ 135 \\ \hline 5 \end{array}$$

6.5 gms of above

$\frac{6.5}{13.7} \times 13$

$$\begin{array}{r} 6.5 \\ 13 \\ \hline 195 \\ 65 \\ \hline 13.7\,)\,84.5\,(6.2 \\ 822 \\ \hline 230 \end{array}$$

for 1 6.2 gms + 0.3 cc 2% KOH Sole.

13.0 gms. + 0.8 cc. 2% KOH Sole.

~~total~~ wt. 13.8 gms.

6.6 gms of above for 1 length

$\frac{6.6}{13.8} \times 13$

$$\begin{array}{r} 6.6 \\ 13 \\ \hline 198 \\ 66 \\ \hline 85.8 \end{array}$$

$$13.8\,)\,85.8\,(6.22 = 12.44$$

828

300

276

240

STRONTIUM CARBONATE 750 atm.

for 2 — 15 gms + 0.6 cc. 20% KOH Solu.
for 1 — 6.9 of above. length 13/32"
total weight = 15.6 gms

For 1:- $\frac{6.9}{15.6} \times 15$

6.9
15
345
69
15.6) 103.5 (6.63 (4+) gms Str. Carb.
936
990
936
540
468
720

$\frac{6.9}{15.6} \times 0.6$

15.6) 41.4 (2.65 (4-)
312
1020
936
840
780
60

6.634
.265
6.899
6.9

For 2 without waste 2 × 6.64 = 13.28 gms powder
plus 2 × .265 = .530 cc. 20% KOH Solu.
for 1, use 6.9 gms of above.

STRONTIUM CARBONATE 1000 atm.
349#/□" on 1000# gauge

Mix.
for 2 15 + 0.6 cc. 2% KOH soln.
7.3 of above: length 13/32 O.K.
∴ 1 of above contains
7 gms Stront. Carb.
0.3 cc. 2% KOH soln.

Total wt 15.6

$\frac{7.3}{15.6} \times 15$ 7 gms. $\frac{7.3}{15.6} \times 0.6$ Say 0.3

7.3
15
365
73
15.6) 109.5 (7.02
1092
300

15.6) 4.38 (2
312
6

for 2 14 gms + 0.6 cc. 2%

Colloidal Chromic Hydroxide 500 atm

~~200~~ mesh

4.9 gms length $\frac{7}{16}$"

$$
\begin{array}{r}
4.9 \\
13 \\
\hline
147 \\
49 \\
\hline
14\overline{)63.7}\ (4.55 \\
56 \\
\hline
77 \\
70 \\
\hline
70
\end{array}
$$

4.6 grams — length